



SEQUENCE LISTING

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Datta, Abhijit
Wang, Yuping

<120> METHODS AND COMPOSITIONS FOR
DETERMINATION OF GLYCATED PROTEINS

<130> 466992001300

<140> 10/622,893

<141> 2003-07-17

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<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> peptide

<400> 1

Met Gly Gly Ser Gly Asp Asp Asp Asp Leu Ala Leu
1 5 10

<210> 2

<211> 6

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<213> Artificial Sequence

<220>

<223> FAD cofactor-binding consensus sequence

<221> VARIANT

<222> 2, 4, 5

<223> Xaa = Any Amino Acid

<400> 2

Gly Xaa Gly Xaa Xaa Gly
1 5

<210> 3

<211> 437

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<220>

<223> peptide

<400> 3

Ala Val Thr Lys Ser Ser Ser Leu Leu Ile Val Gly Ala Gly Thr Trp
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Gly Thr Ser Thr Ala Leu His Leu Ala Arg Arg Gly Tyr Thr Asn Val
 20 25 30
 Thr Val Leu Asp Pro Tyr Pro Val Pro Ser Ala Ile Ser Ala Gly Asn
 35 40 45
 Asp Val Asn Lys Val Ile Ser Ser Gly Gln Tyr Ser Asn Asn Lys Asp
 50 55 60
 Glu Ile Glu Val Asn Glu Ile Leu Ala Glu Glu Ala Phe Asn Gly Trp
 65 70 75 80
 Lys Asn Asp Pro Leu Phe Lys Pro Tyr Tyr His Asp Thr Gly Leu Leu
 85 90 95
 Met Ser Ala Cys Ser Gln Glu Gly Leu Asp Arg Leu Gly Val Arg Val
 100 105 110
 Arg Pro Gly Glu Asp Pro Asn Leu Val Glu Leu Thr Arg Pro Glu Gln
 115 120 125
 Phe Arg Lys Leu Ala Pro Glu Gly Val Leu Gln Gly Asp Phe Pro Gly
 130 135 140
 Trp Lys Gly Tyr Phe Ala Arg Ser Gly Ala Gly Trp Ala His Ala Arg
 145 150 155 160
 Asn Ala Leu Val Ala Ala Ala Arg Glu Ala Gln Arg Met Gly Val Lys
 165 170 175
 Phe Val Thr Gly Thr Pro Gln Gly Arg Val Val Thr Leu Ile Phe Glu
 180 185 190
 Asn Asn Asp Val Lys Gly Ala Val Thr Gly Asp Gly Lys Ile Trp Arg
 195 200 205
 Ala Glu Arg Thr Phe Leu Cys Ala Gly Ala Ser Ala Gly Gln Phe Leu
 210 215 220
 Asp Phe Lys Asn Gln Leu Arg Pro Thr Ala Trp Thr Leu Val His Ile
 225 230 235 240
 Ala Leu Lys Pro Glu Glu Arg Ala Leu Tyr Lys Asn Ile Pro Val Ile
 245 250 255
 Phe Asn Ile Glu Arg Gly Phe Phe Glu Pro Asp Glu Glu Arg Gly
 260 265 270
 Glu Ile Lys Ile Cys Asp Glu His Pro Gly Tyr Thr Asn Met Val Gln
 275 280 285
 Ser Ala Asp Gly Thr Met Met Ser Ile Pro Phe Glu Lys Thr Gln Ile
 290 295 300
 Pro Lys Glu Ala Glu Thr Arg Val Arg Ala Leu Leu Lys Glu Thr Met
 305 310 315 320
 Pro Gln Leu Ala Asp Arg Pro Phe Ser Phe Ala Arg Ile Cys Trp Cys
 325 330 335
 Ala Asp Thr Ala Asn Arg Glu Phe Leu Ile Asp Arg His Pro Gln Tyr
 340 345 350
 His Ser Leu Val Leu Gly Cys Gly Ala Ser Gly Arg Gly Phe Lys Tyr
 355 360 365
 Leu Pro Ser Ile Gly Asn Leu Ile Val Asp Ala Met Glu Gly Lys Val
 370 375 380
 Pro Gln Lys Ile His Glu Leu Ile Lys Trp Asn Pro Asp Ile Ala Ala
 385 390 395 400
 Asn Arg Asn Trp Arg Asp Thr Leu Gly Arg Phe Gly Gly Pro Asn Arg
 405 410 415
 Val Met Asp Phe His Asp Val Lys Glu Trp Thr Asn Val Gln Tyr Arg
 420 425 430
 Asp Ile Ser Lys Leu
 435

<210> 4
 <211> 17
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<220>
 <223> peptide

<400> 4
Lys Gly Glu Leu Glu Gly Leu Pro Ile Pro Asn Pro Leu Leu Arg Thr
1 5 10 15
Gly

<210> 5
<211> 472
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric protein

<400> 5
Met Gly Gly Ser Gly Asp Asp Asp Asp Leu Ala Leu Ala Val Thr Lys
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Ser Ser Ser Leu Leu Ile Val Gly Ala Gly Thr Trp Gly Thr Ser Thr
20 25 30
Ala Leu His Leu Ala Arg Arg Gly Tyr Thr Asn Val Thr Val Leu Asp
35 40 45
Pro Tyr Pro Val Pro Ser Ala Ile Ser Ala Gly Asn Asp Val Asn Lys
50 55 60
Val Ile Ser Ser Gly Gln Tyr Ser Asn Asn Lys Asp Glu Ile Glu Val
65 70 75 80
Asn Glu Ile Leu Ala Glu Glu Ala Phe Asn Gly Trp Lys Asn Asp Pro
85 90 95
Leu Phe Lys Pro Tyr Tyr His Asp Thr Gly Leu Leu Met Ser Ala Cys
100 105 110
Ser Gln Glu Gly Leu Asp Arg Leu Gly Val Arg Val Arg Pro Gly Glu
115 120 125
Asp Pro Asn Leu Val Glu Leu Thr Arg Pro Glu Gln Phe Arg Lys Leu
130 135 140
Ala Pro Glu Gly Val Leu Gln Gly Asp Phe Pro Gly Trp Lys Gly Tyr
145 150 155 160
Phe Ala Arg Ser Gly Ala Gly Trp Ala His Ala Arg Asn Ala Leu Val
165 170 175
Ala Ala Ala Arg Glu Ala Gln Arg Met Gly Val Lys Phe Val Thr Gly
180 185 190
Thr Pro Gln Gly Arg Val Val Thr Leu Ile Phe Glu Asn Asn Asp Val
195 200 205
Lys Gly Ala Val Thr Gly Asp Gly Lys Ile Trp Arg Ala Glu Arg Thr
210 215 220
Phe Leu Cys Ala Gly Ala Ser Ala Gly Gln Phe Leu Asp Phe Lys Asn
225 230 235 240
Gln Leu Arg Pro Thr Ala Trp Thr Leu Val His Ile Ala Leu Lys Pro
245 250 255
Glu Glu Arg Ala Leu Tyr Lys Asn Ile Pro Val Ile Phe Asn Ile Glu
260 265 270
Arg Gly Phe Phe Glu Pro Asp Glu Glu Arg Gly Glu Ile Lys Ile
275 280 285
Cys Asp Glu His Pro Gly Tyr Thr Asn Met Val Gln Ser Ala Asp Gly
290 295 300
Thr Met Met Ser Ile Pro Phe Glu Lys Thr Gln Ile Pro Lys Glu Ala
305 310 315 320
Glu Thr Arg Val Arg Ala Leu Leu Lys Glu Thr Met Pro Gln Leu Ala
325 330 335
Asp Arg Pro Phe Ser Phe Ala Arg Ile Cys Trp Cys Ala Asp Thr Ala
340 345 350
Asn Arg Glu Phe Leu Ile Asp Arg His Pro Gln Tyr His Ser Leu Val
355 360 365

Leu	Gly	Cys	Gly	Ala	Ser	Gly	Arg	Gly	Phe	Lys	Tyr	Leu	Pro	Ser	Ile
370						375					380				
Gly	Asn	Leu	Ile	Val	Asp	Ala	Met	Glu	Gly	Lys	Val	Pro	Gln	Lys	Ile
385					390					395					400
His	Glu	Leu	Ile	Lys	Trp	Asn	Pro	Asp	Ile	Ala	Ala	Asn	Arg	Asn	Trp
					405				410						415
Arg	Asp	Thr	Leu	Gly	Arg	Phe	Gly	Gly	Pro	Asn	Arg	Val	Met	Asp	Phe
					420				425						430
His	Asp	Val	Lys	Glu	Trp	Thr	Asn	Val	Gln	Tyr	Arg	Asp	Ile	Ser	Lys
					435				440						445
Leu	Lys	Gly	Glu	Leu	Glu	Gly	Leu	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Arg
							450				460				
Thr	Gly	His	His	His	His	His	His								
							465								
								470							

<210> 6
<211> 1419
<212> DNA
<213> Artificial Sequence

<220>
<223> nuc sequence encoding a chimeric protein

<400> 6
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ctgatcggtt gtgccgggac ttggggcacc tcaacggctc tgccacccgc ggcggccgga 120
tataccaacg ttaccgtgct ggaccctat cctgtcccta ggcgcattctc cgccggaaac 180
gacgtgaaca aagtcatcg cagtggccaa tattcgaata acaaagacga aatcgaatgt 240
aatgagatct tggcggaaaga ggcgttaac gtttggaaaga acgaccgcgt tttcaaacgg 300
tattatcatg atacgggcct gctgtgtct gttgtctcg aggaggcct ggatcgctg 360
ggcgtccggg tacgtccggg cgaggatcct aatctgggg aacttacccg cccggagcaa 420
tttcgttaaac tggccccggg aggcgtgtt caaggtgatt ttccgggttg gaaagggtac 480
tttgcgcgtt ccggcgctgg ctgggcacat gcaaggaatg ctttagtggc agcagcacgc 540
gaagcacagc gcatgggtgt aaaattgtt actggcacccc cgcaagggtcg ttagtgcacg 600
ttaatctttg aaaataaacga tgtaaaagggt gccgttacgg gcgatggcaa aatttggaga 660
gcggAACGTA cattcctgtg tgctgggct agcgcgggtc agtttcttaga ttcaagaat 720
caacttcgac caaccgcctt gaccctggta cacattgcgt taaaaccggg agaacgtgcg 780
ttgtacaaaa atataccggt tatcttaac atcgaacggg gtttttctt tgaaccggat 840
gaggagcgcg gtgagattaa aatatgcgtt gaacaccgg gctacacaaa tatggtccag 900
agtgcagacg gcacgcgtat gagcattccg ttcgaaaaaaaa cccagattcc aaaagaagcc 960
gaaacgcgcg ttccggccct gctgaaagag acaatgcccc agctggcaga ccgtccattc 1020
agcttcgcac gcatttgcgt gttgtccgtt accgcgaatc gcaatttcct gatagatcga 1080
catccgcagt accacagtct tgggtggc tgggtgcga gcgaaagagg gttttaaat 1140
ctgccttcta ttgggaatct cattgttgac gcgatggaa gtaaagtgc gaaaaaaaaatt 1200
cacgaattaa tcaagtggaa cccggacatt gcccggaaacc gtaactggcg tgataactctg 1260
ggcggtttt ggggtccaaa tcgtgtgatg gattttcatg atgtgaagga atggaccaat 1320
gttcagttatc gtgatatttc caagctgaaa ggagagttgg aaggttaagcc aatccctaac 1380
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<210> 7
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<220>
<223> peptide

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<222> 12
<223> Xaa = C or T

<400> 7
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1 5 10 15
Gly Thr Trp Gly
20 25 30
Gly Gly Gly Gly Gly Gly
35

<210> 8
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide

<400> 8
Ala Pro Ser Ile Leu Ser Thr Glu Ser Ser Ile Ile Val Ile Gly Ala
1 5 10 15
Gly Thr Trp Gly
20 25 30
Gly Gly Gly Gly Gly Gly
35

<210> 9
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide

<400> 9
Ser Thr Glu Ser Ser Ile Ile Val Ile Gly Ala Gly Thr Trp Gly Cys
1 5 10 15
Ser Thr Ala Leu
20 25 30
Leu Leu Leu Leu Leu Leu
35

<210> 10
<211> 39
<212> PRT
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<220>
<223> peptide

<400> 10
Ala Val Thr Lys Ser Ser Ser Leu Leu Ile Val Gly Ala Gly Thr Trp
1 5 10 15
Gly Thr Ser Thr
20 25 30
Thr Thr Thr Thr Thr Thr
35

<210> 11

<211> 7
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 11
Asp Tyr Lys Asp Asp Asp Lys
1 5

<210> 12
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> exemplary epitope tag

<400> 12
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 13
<211> 11
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 13
Cys Gln Asp Leu Pro Gly Asn Asp Asn Ser Thr
1 5 10

<210> 14
<211> 10
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 14
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 15
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> exemplary epitope tag

<400> 15
His His His His His His
1 5

<210> 16
<211> 6
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 16
Asp Thr Tyr Arg Tyr Ile
1 5

<210> 17
<211> 6
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 17
Glu Tyr Met Pro Met Glu
1 5

<210> 18
<211> 11
<212> PRT
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<220>
<223> exemplary epitope tag

<400> 18
Ala Ser Met Thr Gly Gly Gln Gln Met Gly Arg
1 5 10

<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> exemplary epitope tag

<400> 19
Ser Phe Pro Gln Phe Lys Pro Gln Glu Ile
1 5 10

<210> 20
<211> 12
<212> PRT

<213> Artificial Sequence

<220>

<223> exemplary epitope tag

<400> 20

Lys Gly Phe Ser Tyr Phe Gly Glu Asp Leu Met Pro
1 5 10

<210> 21

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> exemplary epitope tag

<400> 21

Gln Tyr Pro Ala Leu Thr
1 5

<210> 22

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> exemplary epitope tag

<400> 22

Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly Asp
1 5 10

<210> 23

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> exemplary epitope tag

<400> 23

Glu Val His Thr Asn Gln Asp Pro Leu Asp
1 5 10